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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,529	12/13/2000	Gerd Hexels	LO24-001	9830

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EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 11/22/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/737,529

Examiner

Jennifer A Boyd

Applicant(s)

HEXELS, GERD

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 and 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-15, 20 and 21 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

In Pre-Amendment A (Paper No. 2), Claims 1 – 6 were deleted and claims 8 – 21 were added. The original claim 8 was not cancelled, therefore, now two claims are numbered as 8. For the purposes of examination, the Examiner has renumbered the original dependent claim 8 as 8a and the added independent claim 8 as 8b. Correction is required.

Claim Rejections - 35 USC § 112

2. Claims 7 and 8a are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claims 7 and 8a are dependent on claim 6. Claim 6 was previously cancelled in Pre-Amendment A (Paper No. 2). For the purposes of examination, claims 7 and 8a will depend on claim 8b. Appropriate correction is required.

Claim Rejections - 35 USC § 102

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 7, 8b, 9 – 14 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by May (Re 29,630).

6. As to claims 8b and 20, May teaches a fire-resistant fabric (Title) comprising mattress ticking, pads or covers coated with a flexible, film-forming polymeric or resinous binder and from 30-60% by weight, preferably about 45%, of a heat-conductive flake- or leaf-shaped material, finely divided leafing-grade aluminum or conductive graphite being preferred (column 1, lines 63 – 69 and column 2, lines 1 – 2). Mixtures of flake graphite and aluminum may be used if desired although it is usually more convenient to use one or the other alone depending on the desired effect (column 3, lines 63 – 65). One embodiment of the invention is a fabric such as mattress ticking, or “first non-woven”, containing the heat conductive coating in contact with an assembly which can be mattress batting, or “second non-woven” (claims 1 and 2). It is known in the art that mattress ticking and mattress batting can be non-woven materials. The mattress ticking or “first non-woven” is usually cotton (column 4, lines 65 – 69). The mattress batting or “second non-woven” may be rayon or other natural or synthetic material (column 4, lines 60 – 66).

7. As to claim 12, a film-forming polymeric or resinous binder is arranged between the two non-woven materials. The graphite flakes are contained within the binder (column 1, lines 63 – 69). The polymeric binder should be breathable (column 4, lines 9 – 12).

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8. As to claim 13, the flakes are dispersed within the polymer binder (claim 1). The binders that are film-forming (column 1, lines 63 – 69) are by nature hot melt adhesives because they must be applied in a molten state and cools to a solid state to form a bond.

9. As to claims 7 and 14, the film-forming adhesive creates a third layer between the two non-woven materials (column 1, lines 63 – 69).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 9, 8a, 10 – 11, 15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over May (US Re 29,630) in view of Srinivasan (US 6,309,987).

12. As to claims 9, 10 and 11, May teaches the “first non-woven” or mattress ticking is usually cotton (column 4, lines 65 – 69) and the “second non-woven” or batting may be rayon or other natural or synthetic material.

May fails to disclose that the “first non-woven” can be polyester and that the “second non-woven” can be polyester and/or polyamide.

Srinivasan teaches a non-woven fabric with flame retardancy having at least one fabric layer (Abstract). The non-woven fabric can be made of polyester or a polyamide (column 4, lines 46 – 51).

It would have been obvious to one of ordinary skill in the art at the invention was made to create the "first non-woven" from polyester and the "second non-woven" from polyester or polyamide motivated by the desire to create a flame retardant fabric with high thermal stability.

13. As to claims 8a, 15 and 21, May fails to teach a membrane between the two non-woven fabrics in which the "first non-woven" is bonded to the membrane by spots of adhesive and the "second non-woven" is bonded to the membrane by a layer of hot melt adhesive.

Srinivasan teaches that the non-woven fabric can have any combination of multiple layers. The non-woven fabric can be made of four layers (column 6, lines 33 - 39). The top layer is a spunbonded fabric or "second non-woven", the second layer is a meltblown fabric or "hot-melt adhesive layer", the third layer is a meltblown fabric or "membrane" and the bottom layer is a spunbonded fabric or "first non-woven" (column 6, lines 33 - 39). Srinivasan teaches that the laminate can be ultrasonically spot bonded or bonded by hot melt/glue adhesive lamination (column 8, lines 46 - 50).


It would have been obvious to one of ordinary skill in the art at the time the invention was made to create the laminate of May with a membrane adhered to the "first non-woven" as suggested by Srinivasan motivated by the desire to add breathability and rigidity to the structure while adding additional strength due to the spot adhesive.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 703-305-7082. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Jennifer Boyd
November 6, 2002


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700